

# UNDERSTANDING THE POTENTIAL PROFITABILITY FOR SPECIALTY CROPS AND VALUE-ADDED ACTIVITIES USED IN AGRITOURISM OPERATIONS IN SOUTHWESTERN COLORADO

## PROJECT INTRODUCTION

Agritourism may be a viable option for producers to make additional income for their farming operation in Southwest Colorado.

However, difficult regulatory environments may prevent farmers from engaging in agritourism. The focus of this project was to create enterprise budgets for a one-acre lavender farm and a five-acre heritage apple operation to estimate start-up costs, determine long-term profitability, and examine opportunities for earning additional income via agritourism.

## INTERNSHIP GOALS

1. Work with a small group of lavender and heritage apple producers in Montezuma County to better understand the economic and regulatory barriers they face.
2. Incorporate information learned from producers to create two partial enterprise budgets for each system.
3. Discuss and better understand barriers lavender and heritage apple producers face in regard to agritourism operations.
4. Relay results of budgeting tools with producers in Montezuma County.

## EDUCATION APPLICATIONS

As a Soil and Crop student with minors in organic agriculture, horticulture, and agricultural business, it was extremely beneficial to develop interviewing skills and work directly with a small group of producers. I gained practical knowledge of lavender and heritage apple production and was able to apply that knowledge to improve my budgeting and research skills.

## ACKNOWLEDGEMENTS

I would like to thank and acknowledge all the producers who graciously took the time to allow me to see their operations and answer my questions in a very busy time of the year. I'd like to further thank CSU Extension for providing this educational outreach opportunity that allowed me to gain a better understanding of the costs and regulatory barriers that producers face.

## METHODS

1. Conducted initial background research to better understand production methods of lavender and heritage apples.
2. Interviewed producers in Southwest Colorado about start-up cost estimates, and regulatory barriers they faced. I attended the Palisade lavender festival and toured lavender farms in Hotchkiss and Paonia. Additionally, I met with researchers at the Hotchkiss research center to further study heritage apple production methods.
3. Created multi-year enterprise budgets using background information from my initial research, and information gathered from in-person interviews with producers and researchers.
4. Met with a member of the planning and zoning department in Montezuma County to understand the permits and costs associated with agritourism, including the county requirements for an on-site farm stand/store, farm tours, classes, and pick-your-own. I used this information to inform the partial budgets I created pertaining to agritourism.

**TABLE 1. MULTI-YEAR ENTERPRISE BUDGET FOR LAVENDER**

The lavender enterprise budget is based on a mix of angustifolia and intermedia varieties. It shows increasing returns as plants mature after establishment in year 1, accounting for annual plant loss from environmental and pest pressures. Revenues are generated from a mix of retail and wholesale fresh product sales, as well as a variety of processed products, including dried buds, oil, and hydrosol.

	Year 1		Years 2&3		Year 4	
	Per acre	Per plant	Per acre	Per plant	Per acre	Per plant
Land preparation & planting	13,725.00	6.30				
Labor	4,027.50	1.85	11,697.45	5.37	18,873.00	8.67
Other variable costs	509.31	0.23	9,234.41	4.24	5,480.01	2.52
<b>Total variable costs</b>	<b>\$18,261.81</b>	<b>\$8.38</b>	<b>\$20,931.86</b>	<b>\$9.61</b>	<b>\$24,353.01</b>	<b>\$11.18</b>
Irrigation system	2,550.00	1.17				
Fencing	677.16	0.31				
Drying and distilling equipment			1,400.00	0.64		
Other fixed costs*	1,816.50	0.83	10,126.62	4.65	10,126.62	4.65
<b>Total fixed costs</b>	<b>\$5,043.66</b>	<b>\$2.32</b>	<b>\$11,526.62</b>	<b>\$5.29</b>	<b>\$10,126.62</b>	<b>\$4.65</b>
Total Revenue	-	-	38,799.82	17.81	114,763.21	52.69
Total variable costs	18,261.81	8.38	20,931.86	9.61	24,353.01	11.18
Net cash receipts from operations	(18,261.81)	(8.38)	17,867.96	8.20	90,410.20	41.51
Total fixed costs	5,043.66	2.32	11,526.62	5.29	10,126.62	4.65
<b>Net returns to land, labor &amp; management</b>	<b>-\$23,305.47</b>	<b>-\$10.70</b>	<b>\$6,341.34</b>	<b>\$2.91</b>	<b>\$80,283.58</b>	<b>\$36.86</b>

## PARTIAL BUDGETING FOR LAVENDER AGRITOURISM OPERATIONS

I looked at two different revenue-generating opportunities for agritourism; operating entirely as a U-pick and offering educational classes.

The **U-pick operation** significantly reduced labor costs for the producer, as the fresh lavender crop is harvested directly from the field by the consumer. Accounting for field harvesting losses, net income was over \$28,000 per year in this scenario, as the producer incurs no harvest and processing costs. In this scenario, the producer doesn't process any lavender into higher value-added products.

**Offering classes** has revenue-generating potential, but Montezuma County's high impact road fee serves as a barrier, limiting the numbers of participants farmers can host. Holding smaller classes (less than 20 attendees) can yield a positive change in net income (our example=\$59.50), but larger classes (greater than 35 attendees) results in a negative net income (our example=\$1114.00) due to county fees on high impact road access. Businesses would have to offer at least 2 classes per season to recover the cost of the permit.

## KEY FINDINGS

- Lavender operations have relatively low start-up costs, compared to other specialty crops such as heritage apples.
- Increased interest in lavender has boosted the value of the crop and related products.
- Agritourism operations such as a u-pick and/or educational classes have revenue-generating potential, but all associated costs need to be assessed.

The partial budget exercise shows that some activities, with fewer participants, can provide additional income, but this potential is capped by Montezuma County's fees and permits on ag operations engaging in value-added activities. The high impact road use fee, required for more than 15 vehicle round trips per day, requires a costly and lengthy process to obtain. However, obtaining a permit may pay off over time if producers can invite more paying guests to participate in value-added activities.

## NEXT STEPS

Further work on the partial enterprise budgets may be beneficial in relaying information to both producers and Montezuma County planning officials. This, in turn, could facilitate discussions around increasing support and resources for agritourism operations.